

ABSTRACT  
ION DETECTOR

5       An ion detector 7 for a mass spectrometer is  
disclosed comprising a microchannel plate 8 which  
receives ions 12 at an input surface and releases  
secondary electrons 16 from an output surface. A  
detecting device 9 having a detecting surface is  
10       arranged to receive at least some of the electrons 16  
emitted by the microchannel plate 8. The area of the  
detecting surface is substantially greater than the area  
of the output surface of the microchannel plate 8.